

**ABSTRACT**

**Current source blocks in monotonic precise current DAC**

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A two-dimensional matrix decoder of a digital-to-analog converter comprises an array of current cells, the cells having a current source means or a current divider means and a switching means, all cells being activatable in a pre-determined sequence. The matrix decoder comprises:

- 10 a selection means outputting a first selection signal for selecting a cell,  
a cell state signaling means outputting a cell state signal determining whether a cell comes before or after the selected cell in the pre-determined sequence, and  
matrix logic associated with each cell for generating a control signal suitable for controlling the switching means of that cell for switching current from the current  
15 source means or current divider means of that cell to at least one of a first node or a second node, the control signal being generated depending on the first selection signal and the cell state signal.